

What is claimed is:

5 1. A device comprising:

- a communication system transmitter for transmitting signals via a radio interface in a first frequency band;
- a receiver for receiving signals via a radio 10 interface in a second frequency band, said receiver including an attenuation component for attenuating signals received by said receiver; and
- a controlling portion setting an attenuation which 15 is applied by said attenuating component to signals received by said receiver to a higher value in case said communication system transmitter is transmitting signals with a power level exceeding a certain value, and setting an attenuation which is applied by said attenuating component to signals received by said receiver to a lower value in case no signal is transmitted by 20 said communication system transmitter, wherein said higher value is sufficiently high to prevent an evaluation of said attenuated received signals, when said attenuation is set to said higher value.

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2. The device according to claim 1, wherein said communication system transmitter includes a variable amplifier for amplifying signals which are to be transmitted by said communication system transmitter, 30 and wherein said controlling portion sets said attenuation which is applied by said attenuating component to signals received by said receiver to a

value which increases with an increasing amplification factor of an amplification applied by said variable amplifier to signals which are to be transmitted by said communication system transmitter.

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3. The device according to claim 1, wherein said device comprises a communication system section including said communication system transmitter and a receiver section including said receiver receiving signals in a second frequency band, and wherein said controlling portion is located in at least one of said communication system section and said receiver section.

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15 4. The device according to claim 3, wherein said controlling portion includes at least a part of a processor provided in said communication system section and at least a part of a processor provided in said receiver section.

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5. The device according to claim 1, wherein said receiver receiving signals in said second frequency band further includes an automatic gain control component, and wherein said controlling portion 25 combines information from said automatic gain control component and information from a communication system section including said communication system transmitter for determining an attenuation to be set.

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30 6. The device according to claim 1, wherein said controlling portion determines an attenuation to be set based on at least one of the power level of signals transmitted by said communication system

transmitter and the power level of signals received by said receiver receiving signals in said second frequency band.

- 5 7. The device according to claim 1, further comprising a communication system receiver for receiving signals in said first frequency band, wherein said controlling portion determines an attenuation to be set based on the power level of signals received by  
10 said communication system receiver.
8. The device according to claim 7, wherein said controlling portion determines an attenuation to be set based in addition on the power level of signals received by said receiver receiving signal in said  
15 second frequency band.
9. The device according to claim 1, wherein said attenuating component comprises a variable gain  
20 attenuator, and wherein said variable gain attenuator applies at least part of said set attenuation to a signal received by said receiver by varying an attenuation applied by said variable gain attenuator to said received signal.  
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10. The device according to claim 9, wherein said receiver receiving signals in said second frequency band further includes an amplifier for amplifying signals received via an antenna of said device, and a  
30 processing portion for processing signals amplified by said amplifier, and wherein said variable gain attenuator is arranged between said amplifier and said processing portion.

11. The device according to claim 1, wherein said attenuating component is integrated with at least one other component of said receiver receiving signals in said second frequency band in an integrated circuit.  
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12. The device according to claim 1, wherein said attenuating component is implemented in a dedicated integrated circuit, which dedicated integrated circuit is external to other components of said receiver receiving signals in said second frequency band.  
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13. The device according to claim 1, wherein said attenuating component comprises a variable amplifier, wherein said variable amplifier applies at least part of said set attenuation to a signal received by said receiver by varying an amplification factor of an amplification applied by said variable amplifier to said received signal.  
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14. The device according to claim 1, further comprising an antenna which is connected to said receiver receiving signals in said second frequency band,  
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15. The device according to claim 1, wherein said attenuating component comprises a component applying at least part of said set attenuation to a signal received by said receiver by detuning said antenna.  
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second frequency band by reducing at least for one component of said receiver a supplied operation voltage.

5 16. The device according to claim 1, wherein said receiver receiving signals in said second frequency band further includes a first converting component for converting a received radio frequency signal into an intermediate frequency signal and a second 10 converting component for converting an intermediate frequency signal output by said first converting component into a baseband signal, and wherein said attenuating component applies said set attenuation to a signal received by said receiver at least at one of 15 a radio frequency, an intermediate frequency and a baseband frequency.

20 17. The device according to claim 1, further comprising evaluating means adapted to evaluate said attenuated received signals only in case said attenuated received signals have a sufficiently high power level.

25 18. A component comprising: a controlling portion setting an attenuation which is applied by an attenuating component of a receiver of a communication system to signals received by a radio interface of said receiver in a second frequency band to a higher value in case a transmitter of said communication system is 30 transmitting signals via a radio interface in a first frequency band with a power level exceeding a certain value, and setting an attenuation which is applied by said attenuating component to signals received by

5        said receiver to a lower value in case no signal is transmitted by said communication system transmitter, wherein said higher value is sufficiently high to prevent an evaluation of said attenuated received signals, when said attenuation is set to said higher value.

10      19. A method for improving the performance of a receiver via a comprising:

10      attenuating a signal received by said receiver via a radio interface in a second frequency band with a higher attenuation, in case a communication system transmitter in which said receiver is combined in a single device is transmitting signals via a radio interface in a first frequency band with a power level exceeding a certain value, and

15      attenuating a signal received by said receiver with a lower attenuation, in case no signal is transmitted by said communication system transmitter, wherein said higher attenuation is sufficiently high to prevent an evaluation of received signals attenuated with said higher attenuation.

20      20. The method according to claim 19, wherein said communication system transmitter amplifies signals for transmission with a variable amplification factor, and wherein signals received by said receiver receiving signals in said second frequency band are attenuated with an attenuation which is increased with an increasing amplification factor used by said communication system transmitter for amplifying signals for transmission.

21. The method according to claim 19, wherein for determining an attenuation to be used, information provided by an automatic gain control for said receiver and information provided by a communication system section including said communication system transmitter is combined.  
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22. The method according to claim 19, wherein an attenuation to be used is determined based on at least one of the power level of signals transmitted by said communication system transmitter and the power level of signals received by said receiver receiving signals in said second frequency band.  
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23. The method according to claim 19, wherein an attenuation to be used is determined based on the power level of signals received by a communication system receiver of said device in said first frequency band.  
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24. The method according to claim 23, wherein an attenuation to be used is determined based in addition on the power level of signals received by said receiver receiving signal in said second frequency band.  
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25. The method according to claim 19, wherein signals received by said receiver receiving signals in said second frequency band are attenuated by an attenuation applied by a variable gain attenuator.  
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26. The method according to claim 19, wherein signals received by said receiver receiving signals in said  
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second frequency band are attenuated by reducing an amplification applied to said signals.

27. The method according to claim 19, wherein signals  
5 received by said receiver receiving signals in said second frequency band are attenuated by detuning an antenna forwarding signals to said receiver.

28. The method according to claim 19, wherein signals  
10 received by said receiver receiving signals in said second frequency band are attenuated by reducing at least for one component of said receiver a supplied operation voltage.

15 29. The method according to claim 19, wherein signals received by said receiver receiving signals in said second frequency band are attenuated at least at one of a radio frequency, an intermediate frequency and a baseband frequency.

20 30. The method according to claim 19, further comprising evaluating said attenuated received signals only in case said attenuated received signals have a sufficiently high power level.

25 31. A device comprising:  
- means for transmitting signals via a radio interface in a first frequency band;  
- means for receiving signals via a radio interface in a second frequency band, said means for receiving including means for attenuating signals received by said means for receiving; and

- means for setting an attenuation which is applied by said means for attenuating to signals received by said means for receiving to a higher value in case said means for transmitting is transmitting signals with a power level exceeding a certain value, and setting an attenuation which is applied by said means for attenuating to signals received by said means for receiving to a lower value in case no signal is transmitted by said means for transmitting, wherein said higher value is sufficiently high to prevent an evaluation of said attenuated received signals, when said attenuation is set to said higher value.

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